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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,467	08/27/2003	Lex M. Cowser	ISIS0085-100 (ISIS-2960US)	6040
34138	7590	12/16/2005	EXAMINER	
COZEN O'CONNOR, P.C. 1900 MARKET STREET PHILADELPHIA, PA 19103-3508			SKIBINSKY, ANNA	
			ART UNIT	PAPER NUMBER
			1631	
DATE MAILED: 12/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/649,467	Applicant(s) COWSERT ET AL.	
	Examiner Anna Skibinsky	Art Unit 1631	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-45 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-17, drawn to a method for generating *in silico* a modified oligomer, classified in class 702, subclass 19.

If Group I is chosen, elections from each of the species A, B, and C listed below are required.
  - II. Claims 18-32, drawn to a method for generating and communicating instructions to a synthesizer related to a oligomer to be synthesized, classified in class 702, subclass 19.

If Group II is chosen, elections from each of the species D, E, and F listed below are required.
  - III. Claims 33-36, drawn to providing a group of properties that define a target oligomer, classified in class 702, subclass 19.
  - VI. Claims 37-42, drawn to a method for analyzing *in silico* an oligomer according to a prescribed property and producing an analysis report, classified in class 702, subclass 19.
  - V. Claims 43-44, drawn to a method for selecting an oligomer from a library of oligomers, classified in class 702, subclass 19.
  - VI. Claim 45, drawn to a method for designing an oligomer, classified in class 702, subclass 19.

The inventions are distinct, each from the other because of the following reasons:

The inventions of Groups I-VI are distinct because Groups I and II are aimed at a method for receiving an *in silico* oligomer, generating and communicating information or instructions related to the modified oligomer. Groups III-VI are aimed at determining synthesis instructions or an oligomer, analyzing the oligomer and producing and analysis report, selecting an oligomer from a library, and a method for designing an oligomer.

The inventions of Groups I and II are distinct because the method steps of Group I and II are divergent. Group I requires selecting a nucleobase modification via a computer or manually. Group II requires the generation and manipulation of synthesis instructions. Thus the subject matters of Groups I and II are distinct and the search for both Groups together would be an undue search burden as they are directed to different inventions.

The inventions of Group III, IV, V, and IV are drawn to methods as listed above, are each unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). The inventions of Group III, IV, V, and IV are distinct because each have different steps and/or limitations directed to different results and therefore have different modes of operation.

As describe above, the inventions of Groups I-VI are distinct and therefore the search of the Groups together would be an undue search burden as they are directed to methods that are generally distinct and qualify as separate inventions.

### **Specie Elections Regarding Group I**

One election from each of species A, B, and C is required.

This application contains claims directed to the following patentably distinct species of the claimed invention:

#### Specie (A)

Wherein the at least one prescribed property is a

A1: base chemistry (e.g. claim 8)

A2: sugar chemistry (e.g. claim 9)

A3: linker chemistry (e.g. claim 10)

A4: conjugate (e.g. claim 11)

Claims 1-7 and 12-17 are generic to the above species.

#### Specie (B)

Wherein the modification is a

B1: sugar modification (e.g. claim 12)

B2: base modification (e.g. claim 13)

B3: linker modification (e.g. claim 14)

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B4: conjugate modification (e.g. claim 15)

Claims 1-11 and 16-17 are generic to the above species.

Specie (C)

Wherein the output means is

C1: a computer (e.g. claim 16)

C2: an automated synthesizer (e.g. claim 17)

Claims 1-15 are generic to the above species.

The species listed above are directed to different chemical compositions and methods of making thereof and thus presents a different and clearly distinct search burden, which is undue, if searched together.

**Specie Elections Regarding Group II**

This application contains claims directed to the following patentably distinct species of the claimed invention:

One election from each of species D, E, and F is required.

Specie (D)

Wherein the at least one prescribed property is a

A1: base chemistry (e.g. claim 23)

A2: sugar chemistry (e.g. claim 24)

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A3: linker chemistry (e.g. claim 25)

A4: conjugate (e.g. claim 26)

Claims 18-22 and 27-32 are generic to the above species.

Specie (E)

Wherein the modification is a

B1: sugar modification (e.g. claim 27)

B2: base modification (e.g. claim 28)

B3: linker modification (e.g. claim 29)

B4: conjugate modification (e.g. claim 30)

Claims 18-26 and 31-32 are generic to the above species.

Specie (F)

Wherein the output means is

C1: a computer (e.g. claim 31)

C2: an automated synthesizer (e.g. claim 32)

Claims 18-30 are generic to the above species.

The species listed above are directed to different chemical compositions and methods of making thereof and thus presents a different and clearly distinct search burden, which is undue, if searched together.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.



Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Skibinsky whose telephone number is (571) 272-4373. The examiner can normally be reached on 8 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MARY K. ZEMAN  
PRIMARY EXAMINER

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12/12/05